

REMARKS/ARGUMENTS

This Amendment is being filed in response to the Office Action dated November 10, 2009. Reconsideration and allowance of the application in view of the amendments made above and the remarks to follow are respectfully requested.

Claims 1, 3-7, 9 and 11 are pending in the Application.

In the Office Action, claims 1, 3-7, 9 and 11 are rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. This rejections of claims 1, 3-7, 9 and 11 under 35 U.S.C. §112, first paragraph is respectfully traversed. However, in the interest of expediting consideration and allowance of the present application, the Applicants have elected to amend the specification to remove a paragraph which is indicated in the Office Action as new matter. Further, a paragraph that was previously removed from the specification that was present at the filing of the specification is restored. No new matter is added. Accordingly, Applicants respectfully request approval of the amended specification and withdrawal of the rejections of claims 1, 3-7, 9 and 11 under 35 U.S.C. §112, first paragraph.

In the Office Action, the drawings are objected to under 37 CFR 1.83(a) for various reasons. In response, a replacement drawing sheet is submitted including amended FIGs. 4-6. FIG. 6 is amended to show every feature of the invention specified in the claims as requested in the Office Action. In FIGs. 5 and 6, the layer that was previously marked as 15 is now correctly marked as 13. The cross hatching of this layer is shown to be identical to the cross hatching of the base layer 13 in FIG. 4. Accordingly, Applicants respectfully

request approval of the enclosed proposed replacement drawings and withdrawal of the drawing objection.

In the Office Action, claims 1 and 9 are rejected under 35 U.S.C. §102(e) over U.S. Patent No. 6,798,679 to Matsumoto ("Matsumoto"). Claims 1, 3-7, 9 and 11 are rejected under 35 U.S.C. §103(a) over U.S. Patent No. 6,724,794 to Dudoff ("Dudoff") in view of U.S. Patent No. 4,729,061 to Brown ("Brown"). Claims 1 and 3-5 are rejected under 35 U.S.C. §102(b) over U.S. Patent Publication No. 2002/0050599 to Lee ("Lee"). Claims 1, 3-7 and 9 are rejected under 35 U.S.C. §102(b) over U.S. Patent No. 6,750,924 to Murade ("Murade"), and under 35 U.S.C. §103(a) over Murade in view of Lee. Claim 11 is rejected under 35 U.S.C. §102(b) over Murade and Lee, and further in view of WIPO document No. 02/073572 to E. Ink Corp. ("E. Ink Corp.").

The numerous rejections of claims 1, 3-7, 9 and 11 is respectfully traversed. It is respectfully submitted that the claims are allowable over Matsumoto, Dudoff and Brown, Lee, Murade, and E Ink Corp., for at least the following reasons.

MATSUMOTO

As the Office Action points out, in its Figure 3, Matsumoto illustrates a module substrate 2 having bare chips 1 molded into a mold resin 8 and a good function chip 3 sealed in a mold. Figure 3 also shows common electrical wires 20, mounting islands 10 and bonding wires, also see Figure 32 items 104 and 105. Matsumoto does not specify how common electrical wires 20 are formed. To connect the active and functional layers Matsumoto requires the bare chips 1 to connect to the bonding wires, the bonding wires to connect to the mounting islands, the mounting islands to connect to a second set of the

bonding wires, and finally for the second set of the bonding wires to connect to the good function chip 3.

This scheme of Matsumoto fails to teach, disclose, or suggest a simple connection where "the at least one aperture is filled with conductive material, the conductive material connecting the active and functional layers" as recited in claim 1. Thus, the connection is achieved without requiring the common electrical wires, mounting islands, and bonding wires of Matsumoto.

DUDOFF AND BROWN

With regard to Dudoff and Brown, the Office Action fails to identify exactly what sections of these references teach recitations of claim 1. A close examination of these references did not reveal what exactly would have motivated these skilled in the art to combine them. Moreover, even when combined, there is nothing in Brown that makes it obvious "to replace the direct metal bonding from the active to the functional layers of Dudoff". Because both Dudoff and Brown antedate Matsumoto, these references could have been used to reject Matsumoto. However, as Matsumoto shows, not all connections made through an insulating layer are the same. Accordingly, Dudoff and Brown fail to teach, disclose, or suggest (illustrative emphasis provided) "a functional layer disposed on and in contact with the second side of the substrate layer and electrically connected to the electrode of the at least one switching element through the at least one aperture, wherein the at least one aperture is filled with conductive material, the conductive material connecting the active and functional layers" as in claim 1.

LEE

In its paragraph [0030], Lee describes forming a pixel electrode 171 by deposition of a transparent conductive metal material on the passivation layer 165. This, as was similarly argued in the response filed on February 2, 2009, does not rise to a level of teaching, describing or suggesting "the at least one aperture is filled with conductive material, the conductive material connecting the active and functional layers" as recited in claim 1.

MURADE

Murade was also discussed in the response filed on February 2, 2009. Contrary to claim 1, the contact hole 52 of Murade is unfilled and, as discussed above, Lee does not remedy that deficiency.

FIGs. 7A and 7B, on which the Office Action relies for rejecting claim 1, disclose "passing through the insulating film 32, a first insulating interlayer 41, and the second insulating interlayer 42." This teaches away from active and functional layers 11 and 13 being disposed on opposing first and second sides of a single substrate layer 12 of insulating material as set out in claim 1.

Therefore, it is respectfully submitted that the device of claim 1 is not anticipated or made obvious by the teachings of Lee and Murade.

Based on the foregoing, the Applicants respectfully submit that independent claim 1 is patentable over Lee and Murade and notice to this effect is earnestly solicited.

E. INK CORP

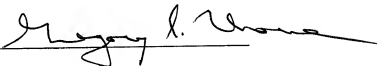
E. Ink Corp. is not brought in to reject the independent claim and does not remedy the drawbacks of Lee and Murade.

Claims 3-7, 9, and 11 respectively depend from claim 1 and accordingly are allowable for at least this reason as well as for the separately patentable elements contained in each of the claims. Accordingly, separate consideration of each of the dependent claims is respectfully requested.

In addition, Applicants deny any statement, position, or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Applicants reserve the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

Applicants have made a diligent and sincere effort to place this application in condition for immediate allowance and notice to this effect is earnestly solicited.

Respectfully submitted,

By 

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Enclosures: A replacement drawings sheet including FIGs. 4, 5, and 6.

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